



**Terms of Reference for new Critical Illness Incidence Rates Working Party**  
(In conjunction with the 'Guidance for Member Led Research Working Parties' and the Volunteer Induction Pack)

Working Party Research Topic/Title:-	<b>CI Incidence Rates WP</b>
Practice Area Research Committee Member Shadow:-	Health and Care Research Sub-Committee (Member TBC)
Source of idea /"Initiator":-	Health and Care Board; update of work done in previous SIAS papers: Exploring the Critical Path (2006) and Extending the Critical Path (2013) Suggested title: Embedding the Critical Path
Working Party Chair:-	TBC
What issue is this research topic trying to address:-	<p>Critical Illness insurance products continue to be a vital solution in many markets for protecting individuals against the financial risks of acquiring a critical illness. Within the IFoA, the Continuous Mortality Investigation has produced, during many years, many working papers and CI claim rate tables for insured populations based on data provided by CMI subscribers. These are immensely useful for many actuarial applications, such as pricing and reserving CI portfolios. There is potential to build on the industry's understanding of CI rates by researching population health datasets (in particular the Hospital Episodes Statistics (HES) data from NHS England) and developing CI incidence rates for the general population in order to provide benchmarks for insured portfolios.</p> <p>Some of these aims were addressed and developed in previous IFoA/SIAS papers in 2006 and 2013 and so it is time that these approaches were revisited and brought up to date with the latest population health datasets and analysis techniques.</p> <p>Furthermore, an analysis of trends in CI rates since 2013 would be highly valuable in the context of changing social and economic conditions in England and the Covid pandemic. The analyses should consider the derivation of CI claims rates at population level for each year, as well as aligning results to the years of the most recent CMI CI investigation.</p> <p>In addition to the results directly applicable to actuaries working in life insurance, the WP should use this opportunity to work with population-level health data to develop outputs that would be of interest beyond traditional life insurance objectives. For example, presenting results of the analyses in formats that would appeal to NHS and social care audiences in England. This would demonstrate the key responsibility of IFoA members to work in the public interest and demonstrate how standard actuarial techniques (CI experience investigations) can be very useful for public health organisations. It would show the value that actuaries can bring to working with anonymous health data by producing outputs that can support delivery of health services.</p> <p>Note that where CMI papers and tables are available only to CMI subscribers and IFoA members, there may be a need to produce one set of outputs for this limited audience and another set of outputs for public domain.</p>



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<p>Who will be the audience for this research:-</p> <p><i>(We need to understand who we believe this research will be of interest to – to ensure we have an end consumer for the research)</i></p>	<p>Pricing Actuaries setting assumption for pricing CI products, valuation actuaries</p> <p>Publications for the public domain should be relevant for life and health actuaries and also for health and social care organisations, public health researchers.</p>
<p>What do we see as being the output/deliverables of this research:-</p>	<p>Produce a WP paper for the public domain, focusing on population CI:</p> <ol style="list-style-type: none"> <li>1. To estimate population CI rates based on HES data in order to provide benchmarks for insurance portfolio CI rates. (requires the data to cover at least the same time periods as the most recent CMI CI investigation)</li> <li>2. To analyse geographic regional variations in CI incidence rates across England. (TBC if geographic indicators will be included in data, i.e. ONS area codes)</li> <li>3. To estimate CI rates split by types of CI to understand the impact of specific CI's on the overall CI rates. (TBC exactly what diagnosis codes (e.g. ICD10 codes) will be included in the HES dataset and how these translate to CI industry definitions)</li> <li>4. Understanding comorbidities and correlations between CI's</li> <li>5. Quantifying yearly trends in CI incidence rates (TBC how many years the data will cover)</li> <li>6. To analyse variations in CI incidence rates due to other factors (e.g. socio-economic or demographic segments)</li> <li>7. Assessing the current industry definitions of CI conditions covered by insurance products and identifying which industry CI conditions cannot be accurately identified in HES data (e.g. conditions typically diagnosed and treated in primary care rather than hospitals) (Perhaps address this in a separate memo or appendix to maintain the focus of the main body on population insights)</li> </ol> <p>Maybe a need to produce another set of output tailored for the actuarial audience, including point 7 above</p>
<p>What are the time scales of this research:-</p>	<p>12 months</p>
<p>What previous work has been done in this area recently, within the profession please email <a href="mailto:libraries@actuaries.org.uk">libraries@actuaries.org.uk</a>, other professions/academia:-</p>	<p>Previous SIAS papers:</p> <ul style="list-style-type: none"> <li>• A Critical Review (2000);</li> <li>• Exploring the Critical Path (2006);</li> <li>• Extending the Critical Path (2013)</li> </ul> <p>Regional Variations in CI WP (est. 2010) CI Definitions WP (est. 2010) CMI Working Papers and CI incidence tables (Insert references)</p>
<p>Will 3<sup>rd</sup> party data be used? If so a protocol will be developed to support you</p>	<p>Yes. Hospital Episode Statistics (HES) data from NHS England (TBC: Initial work has commenced to source and obtain access to the data (likely to be Hospital Episode Statistics data from the NHS). It is planned that the WP would start once the data access and requirements have been established.)</p>



<p>Proposed membership:-</p> <p><i>The IFoA is registered as a Data Controller in terms of the Data Protection Act 1998. The contact details provided (i.e. names and email addresses) will be shared among the members of this working party, the Practice Area Research Committee and the relevant Practice Area Board in relation to the research topic detailed above. The information provided will be used for the purposes of facilitating the completion of the proposed research. The IFoA will not pass your personal information to any other third party without your consent. If you would prefer that your details are not shared in this way, please contact a member of the Practice Executive (<a href="mailto:practice.executive@actuaries.org.uk">practice.executive@actuaries.org.uk</a>)</i></p>	<p>The roles of Chair, Deputy Chair and Members of the WP will be advertised in the usual way.</p> <p>Ideally IFoA members with experience of performing experience studies.</p>
<p>Additional volunteers required:-</p>	<p>None</p>
<p>Frequency and type of meeting:-</p>	<p>Monthly and virtual meetings. Typically,,subgroups of the WP would meet more regularly (once responsibilities and work has been allocated amongst the WP) to progress the work with high momentum.</p>
<p>Engagement with external stakeholders – Public Affairs will support and arrange for you</p>	<p>TBC</p>
<p>IFoA resource and support required:-</p> <p><i>The Practice Executive and Research and Knowledge teams can offer various levels of support during the life of your working party; however we would ask that a member of your working party be responsible for keeping minutes or action points from each of your meetings.</i></p> <p><i>It is important that the working party provides updates to the Practices Manager on an on-going basis, preferably after every meeting. This will ensure that the Board and other committees are kept informed of the work of the working party.</i></p>	<p>TBC: possibly data platform for hosting the data; possibly funding to pay for the datasets.</p>



## Legal Issues to Note

### **Intellectual property issues**

As our members and the wider public will appreciate, we want to ensure that the work produced by our working parties remains the intellectual property of the IFoA and not of individual members, their employers or of the working party itself. This means that that work can be used and disseminated by the IFoA to its members, stakeholders and the wider public to advance all matters relevant to actuarial science and promote the work of the wider actuarial profession.

The IFoA is very grateful to the members and their employers for the time, effort and work which is devoted to the working parties for the shared benefit of all members and the public. However, we also appreciate that employers may have their own intellectual property rights in that material – or even license it to/from third parties – and we need to make sure that the working party is not using that material without the employer's, or third party's consent. Members should remember that they need to get the consent of their employer or relevant third party to bring that material to the working party to use.

In recognition of the support provided by individuals and their employers, all material which is permitted to be used will, of course, be credited – noting the sources or contributors by name in the final work product generated by our working parties. Employers can also raise their own profile by allowing staff to sit on working parties and to have their firms acknowledged as supporting contributors in the final products.

The IFoA has some very short consent forms for our members to use if they do wish to use their employer's or a third party's work which will enable the Executive to compile a list of contributors to be referenced in the final work product. Please approach your relevant Practices Manager for more details. Again, the IFoA cannot provide members with advice in relation to intellectual property law and members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

### **Further guidance**

- The [UK Intellectual Property Office](#) has some helpful guidance for members on basic intellectual property issues.
- The World Intellectual Property Office's website also provides some [helpful guidance on intellectual property matters](#).

### **Competition law issues**

It is the IFoA's policy to comply with competition law – this applies both to the IFoA itself and to our members. Some working parties will come across competition law issues due to the nature of their research work. Members who are on such working parties must be aware of this issue and be prepared to take steps to avoid any breach of the relevant competition laws.

We have produced an informative video clip which sets out some helpful guidance that working party members should bear in mind regarding competition law. However, we cannot provide advice to members, individual members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

For members who are interested, the IFoA has also produced a short note on competition law issues which may impact our working party members. (See Appendix B, page 15)

### **Further guidance**

The Office of Fair Trading (OFT) investigates competition law issues and has some [handy guides](#) which members might find useful.

The OFT also mentions the [Competition Pro Bono Scheme](#) which offers some free legal advice to individuals and businesses who believe that their rights under competition law have been infringed or who are concerned that they may be in breach of any relevant laws. Members may also find this useful.

### **Conflicts of Interest**

Consider any conflicts of interest issues which might arise by virtue of a member's membership on the working party and which might breach the [Actuaries' Code](#) provisions